

REMARKS/ARGUMENTS

The present amendment is submitted in response to the Office Action received from the United States Patent Office dated February 11, 2008. In the Office Action, the Patent Office rejected Claims 1-6, 8 and 12-19 under 35 U.S.C. §102(b) as being anticipated by *Marker* (United States Patent Number: 3,903,383). Further, the Patent Office rejected Claims 1-4 and 6-19 under 35 U.S.C. §102(b) as being anticipated by *Koide et al.* (United States Patent Number: 6,849,818).

In response to the Office Action, Applicant has amended Claims 1 and 14. Applicant respectfully submits that the amendment overcomes the rejections raised by the Patent Office. Applicant further submits that the application is now in condition for allowance. Notice to that effect is requested.

The Patent Office rejected Claims 1-6, 8 and 12-19 under 35 U.S.C. §102(b) as being anticipated by *Marker*. The Patent Office states that *Marker* discloses in the figures a rotary circuit selection device comprising a driving cam 26 and an opposing stationary cam 27 each having a series of alternating peaks and valleys; a bias mechanism formed by contact 31 to bias the driving cam toward the stationary cam such that the peaks of each cam are received by the valleys of the opposing cam; and a shaft 4 that rotates and translates the driving cam in relation to the stationary cam in order to select the circuit. The peaks and valleys of the cams extend toward each other along a translational direction of motion of the driving cam. The circuit comprises electrical components. Additionally, the Patent Office states that each peak has an angle formed by converging sides of the peak and each valley has an angle formed by converging sides of the valley, and wherein the angles of the peaks and the angles of the valleys are substantially equal. The biasing mechanism is a compression spring. The Patent Office states that the outer springs form an outer diameter greater than the outer diameter of the driving cam and that each cam may have at least either 8 peaks and 8 valleys or 10 peaks and 10 valleys.

Further the Patent Office states that the shaft extends through inner apertures of each cam and the amount of torque required to rotate the shaft is at least partly based on an amount of

force of the biasing mechanism. Selecting a first circuit includes the step of biasing the driving cam toward the stationary cam. The Patent Office states that for the circuit using optical circuits or magnetic circuits, these are a matter of engineering design choice based on the materials available to the manufacturer and the environment in which the switch is being utilized.

Amended Claim 1 requires a rotary circuit selection device comprising a driving cam and an opposing stationary cam each having a series of alternating peaks and valleys and further wherein the driving cam and the opposing stationary cam have peaks wherein the peaks and valleys have angles formed by converging sides. Further the device has a biasing mechanism configured to bias the driving cam toward the stationary cam such that the peaks of each cam are received by the valleys of the opposing cam. The device has peaks and valleys of the cams that extend towards each other along a translational direction of motion of the driving cam and a shaft that rotates and translates the driving cam in relation to the stationary cam in order to select the circuit.

Amended Claim 14 requires a method of changing a circuit, the method comprising the steps of: providing a driving cam and an opposing stationary cam, the driving cam rotating about an axis, and each of the cams having a body and a plurality of alternating peaks and valleys that extend outward from the respective bodies parallel to the axis and further wherein the peaks and valleys are radially spaced along the entire circumference of the driving cam and the opposing stationary cam; selecting a first circuit by aligning particular peaks with particular valleys; and subsequently selecting a second circuit by torquing the driving cam relative to the stationary cam in order to align other peaks with other valleys.

Marker teaches a multiple switch suited for mounting on printed circuit cards in which the switch units are placed side-by-side in an elongated frame. Each unit may have a unique printed circuit held by a rotor. Multiple stationary fingers make contact with the circuit on the rotor and also provide an axial mechanical bias to accomplish detenting in coaction with an axial cam. Two modes of actuation are possible; by a shaft or by a serrated periphery of the rotor. Dual indication of the position of the rotor is supplied by indicia on the disk of the rotor and on a cylindrical portion of the rotor. The structure enables easy assembly and disassembly, either before or after mounting on a circuit card.

However, *Marker* does not teach or suggest a rotary circuit selection device comprising a driving cam and an opposing stationary cam each having a series of alternating peaks and valleys and further wherein the driving cam and the opposing stationary cam have peaks wherein the peaks and valleys have angles formed by equidistant converging sides as required by Claim 1. Additionally, *Marker* does not teach or suggest

Further, *Maker* does not specifically disclose a method of changing a circuit, the method comprising the step of providing a driving cam and an opposing stationary cam, the driving cam rotating about an axis, and each of the cams having a body and a plurality of alternating peaks and valleys that extend outward from the respective bodies parallel to the axis and further wherein the peaks and valleys are radially spaced along the entire circumference of the driving cam and the opposing stationary cam as required by Claim 14.

Under 35 U.S.C. §102(b), anticipation requires that a single reference disclose each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986).

Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial" and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (MPEP § 2131).

In view of the foregoing remarks and amendments, the rejection of Claims 1-6, 8 and 12-19 under 35 U.S.C. §102(b) as being anticipated by *Marker* has been overcome and should be withdrawn. Notice to that effect is requested.

The Patent Office rejected Claims 1-4 and 6-19 under 35 U.S.C. §102(b) as being anticipated by *Koide et al.* The Patent Office states that *Koide et al.* teaches in the figures a rotary circuit selection device comprising a driving cam 10 and an opposing stationary cam 8 each having a series of alternating peaks and valleys; a biasing mechanism 12 configured to bias

the driving cam toward the stationary cam such that the peaks of each cam are received by the valleys of the opposing cam and a shaft formed by knob 11 that rotates and translates the driving cam in relation to the stationary cam in order to select the circuit.

Amended Claim 1 requires a rotary circuit selection device comprising a driving cam and an opposing stationary cam each having a series of alternating peaks and valleys and further wherein the driving cam and the opposing stationary cam have peaks wherein the peaks and valleys have angles formed by converging sides. Further the device has a biasing mechanism configured to bias the driving cam toward the stationary cam such that the peaks of each cam are received by the valleys of the opposing cam. The device has peaks and valleys of the cams that extend towards each other along a translational direction of motion of the driving cam and a shaft that rotates and translates the driving cam in relation to the stationary cam in order to select the circuit.

Amended Claim 14 requires a method of changing a circuit, the method comprising the steps of: providing a driving cam and an opposing stationary cam, the driving cam rotating about an axis, and each of the cams having a body and a plurality of alternating peaks and valleys that extend outward from the respective bodies parallel to the axis and further wherein the peaks and valleys are radially spaced along the entire circumference of the driving cam and the opposing stationary cam; selecting a first circuit by aligning particular peaks with particular valleys; and subsequently selecting a second circuit by torquing the driving cam relative to the stationary cam in order to align other peaks with other valleys.

Koide et al. discloses a first stopper face having on each of click teeth of a click teeth portion of a click mechanism affording a click feeling during the rotation-operation of a rotary knob. Second stopper face is provided on a tooth portion of a click piece. The first stopper face and the second stopper face cooperate to prevent the rotary knob from rotating in a direction opposite to a direction indicated by an arrow A. Consequently, there is no need for providing a stopper as an additional component.

However, *Koide et al.* does not teach or suggest a rotary circuit selection device comprising a driving cam and an opposing stationary cam each having a series of alternating peaks and valleys and further wherein the driving cam and the opposing stationary cam have

peaks wherein the peaks and valleys have angles formed by equidistant converging sides as required by Claim 1.

Further, *Koide et al.* does not specifically disclose a method of changing a circuit, the method comprising the step of providing a driving cam and an opposing stationary cam, the driving cam rotating about an axis, and each of the cams having a body and a plurality of alternating peaks and valleys that extend outward from the respective bodies parallel to the axis and further wherein the peaks and valleys are radially spaced along the entire circumference of the driving cam and the opposing stationary cam as required by Claim 14.

Under 35 U.S.C. §102(b), anticipation requires that a single reference disclose each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986).

Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial" and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (MPEP § 2131).

In view of the foregoing remarks and amendments, the rejection of Claims 1-4 and 6-19 under 35 U.S.C. §102(b) as being anticipated by *Koide et al.* has been overcome and should be withdrawn. Notice to that effect is requested.

Claims 2-13 depend from Claim 1; and Claim 15-19 depend from Claim 14. These claims are further believed allowable for the same reasons set forth with respect to independent Claims 1 and 14 since each sets forth additional novel elements of Applicant's Rotary Circuit Selection Device with Crown Detent. Profile Rotary Switch with Detent.

In view of the foregoing remarks, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is now in condition for allowance.

If any outstanding issues remain, Applicant urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant requests the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,
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